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ABSTRACT

The birth of a child represents an important normative transition for the infant's mother and her close social network members that may affect both the mother's personal well-being and the quality of her interpersonal realationships. Participants included 47 mothers of infants treated in neonatal intensive care units, and 36 mothers of healthy newborns. Mothers were interviewed between 2 and 5 weeks after birth. The three types of predictive measurements made were: (1) social support; (2) expectancy confirmation; and (3) stress. Outcome indices included those assessing quality of relationships, maternal affect, and attitudes toward the baby. Although support from the mother's "close person," usually a husband or mother, was found to relate positively to maternal affect, combined support from additional persons in the mother's network was unrelated to affect. Close person support was also related to indices of the quality of the mother's relationship with the close individual. Relationship quality and affect were related to the degree to which the mother's expectations for support from the close person had been met following the infant's birth. The results provide preliminary evidence for a proposed model of close relationship processes throughout the life span. (RH)

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Close Relationships in Mothers of At-Risk and Normal Newborns: Support, Expectancy Confirmation, and Maternal Well-Being

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Abstract

Social support and support expectations were studied to determine their relations to maternal affect and quality of relationships in mothers of at-risk and normal newborns. Participants included 47 mothers of infants treated in neonatal intensive care units and 36 mothers of healthy newborns, who were interviewed between two and five weeks after birth. Information was first obtained about the mother's social network and the support derived from various members of the network. Each woman was then asked to select the person closest or most important in her network, and to rate the degree to which her expectations for support from this person had been met since the baby was born. Support from the close person was found to relate positively to maternal affect, whereas the combined support from additional persons in the mother's network was unrelated to affect. Close person support was also related to indices of the quality of the mother's relationship with the close individual. Relationship quality and affect were further related to the degree to which the mother's expectations for support from the close person had been met following the infant's birth. These effects were obtained across levels of stress reported by the mothers. The results extend previous findings regarding the importance of attachment relations in the provision of support and provide preliminary evidence for a proposed model of close relationship processes across the life span.

Close Relationships in Mothers of At-Risk and Normal Newborns:

Support, Expectancy Confirmation, and Maternal Well-Being.

3/24/89

The birth of a child represents an important normative transition for the infant's mother and her close social network members that may affect both the mother's personal well-being and the quality of her interpersonal relationships. Several studies provide evidence that maternal relationships are affected by childbirth (Belsky, Spanier, & Rovine, 1983; Fischer, 1981; Kach & McGhee, 1982; Levitt, Weber, & Clark, 1986), but little is understood at present about the factors that contribute to the quality of interpersonal relationships in adulthood. The goals of this study were to examine the role of factors hypothesized to mediate changes in the mother's close interpersonal relationships, and to explore the impact of these factors on maternal affect and attitudes toward the infant.

The study was conceived as a preliminary test of a life span model of close relationships (Levitt, in press). The model is grounded in prior work on attachment relationships in infancy and on close relationships and social support in adulthood, and specifies that the antecedents and consequences of social support across the life span are best conceptualized within an attachment model. This view is consistent with prior research confirming the importance to maternal well-being of close or intimate support (Crnic, Greenberg, Ragozin, Robinson, and Basham, 1983; Levitt, et al., 1986; Wandersman, Wandersman, & Kahn, 1980), and with a finding that support from one close relation was

sufficient to promote well-being in a high risk elderly sample (Levitt, Clark, Rotton, & Finley, 1987). A schematic representation of the model is presented in Figure 1.

Insert Figure 1 about here

The structural framework for the proposed model is provided by the convoy model of social support proposed by Kahn and Antonucci (1980). An individual's convoy of support consists of the network of persons with whom the individual exchanges support at various points in the life span. The structure and functioning of the convoy are expected to change as the person undergoes the life transitions associated with development and aging. Of interest here are the processes that mediate changes in the structure and function of the individual's social network. The specific focus is on factors hypothesized to promote the retention and stability of important social relationships across major life transitions, including social support and the confirmation of support expectations.

As depicted in Figure 2, three types of variables are thought to influence the development of expectations within a close relationship, including past interactions with the relationship partner, the individual's own social and cognitive development, and beliefs and values about social norms. An important component of past interactions with the relationship partner is the support provided by the partner. Once formulated, these expectations may be maintained unchallenged until events are encountered that test these expectancies. In situations where

testing is likely to take place, such as the transition period of childbirth, disconfirmation of expectations for support may contribute to changes in the relationship.

Insert Figure 2 about here

Few studies have been addressed to the role of support expectations in mediating the effects of pregnancy and childbirth. Kach and McGhee (1982) studied parents' general expectations and perceptions regarding parenthood, and found that women with less accurate expectations were most likely to have problems adjusting to motherhood. Parents' expectations about the impact of a new baby on their relationship was the focus of a study by Belsky (1985), who found that marital satisfaction declined and conflict increased when positive prenatal expectations were violated. Following this line of research, Ruble, Fleming, Hackel, and Stangor (1988) investigated the role of violated expectations regarding postbirth division of labor on the marital relationship. When husbands did not share responsibilities for baby and household care to the extent expected, mothers viewed their infants as having a more negative impact on the spousal relationship. Perceived affective closeness to the husband was not altered, however.

The present study is unique in examining maternal relationship and well-being outcomes as a function of both the emotional and instrumental support received through the mother's closest relationship and the mother's expectations for postbirth support from the close person. The principal questions addressed in the study were related to the two

primary predictors, (a) close support and (b) expectancy confirmation. Based on the proposed model, both support and the degree to which support expectations were met following birth were hypothesized to contribute independently to relationship and well-being outcomes. Furthermore, close support was expected to be more important than support received through the mother's social network as a whole.

Because the effects of social support are often found to interact with stress (Crnic, et al., 1983; Crockenberg, 1981), the stress factor was also taken into consideration, both by including mothers of sick or at-risk infants in the sample, and by interviewing participants about additional stressors in their lives. It was anticipated that mothers of newborns treated in intensive care units might experience greater stress, and that the hypothesized relations of support and expectancy confirmation with the criterion variables of relationship quality and affect might be more pronounced under conditions of higher stress (a "buffering" effect). However, given contradictory findings in this area (Blumberg, 1980; Crnic, et al., 1983; Cohen & Wills, 1985; Feiring, Fox, Jaskir, & Lewis, 1987), no strong predictions could be made regarding the interrelations of infant health status, maternal stress, and support.

Method

Sample

Women were recruited from two neonatal intensive care units and from private obstetric and pediatric practices. Of the 83 mothers who participated, 36 were mothers of healthy newborns and 47 were mothers of infants who had been hospitalized after birth in a neonatal intensive

care unit. The study sample represented 73% of the women initially contacted by telephone as potential participants. The median age of the 83 participants was 29 years, with a range of 18 to 40. Most were Anglo-American white (84%), although a few participants were black (11%), white hispanic (4%), or oriental (1%). A majority of the women were married (86%), while others were single (12%) or separated (2%). Participants reported a mean of 13.5 years of education, with a range of 7 to 20 years. The median income range was $35,000 to $50,000. The sample was evenly divided by parity (42 primaparas; 41 multiparas) and by type of delivery (42 caesarean; 41 vaginal).

Infants were classified into high, medium, or low risk (healthy) groups, based on birth weight, gestational age, and severity of illness criteria (Pernoll, Genda, & Babson, 1986), in consultation with a neonatologist. Risk classifications were made by hospital nursing staff, so that the interviewers would not be influenced by specific information about the infant. Mothers of medically unstable or dying infants were not included in the sample. At the time of the interview, 14 of the high risk infants remained hospitalized while 6 were home; 4 of the medium risk infants were hospitalized and 23 were home; and all 36 of the low risk infants were home. Of the neonatal intensive care babies, 53% were premature, while other diagnoses included such problems as respiratory distress, apnea, and sepsis.

Procedure

The participants were interviewed by an experienced interviewer (the first author) and another of the authors who was trained and observed

extensively prior to interviewing participants. Most of the women were interviewed in their homes, although a few mothers of infants remaining in intensive care were interviewed in the hospital waiting area. Mothers were interviewed within two to five weeks after the infant's birth. The duration of the interview was approximately one hour.

Measures

Three types of predictive measurements were made in the study, including (a) social support, (b) expectancy confirmation, and (c) stress. Outcome indices included those assessing (a) relationship quality (relationship satisfaction and conflict), (b) maternal affect (affect balance), and (c) attitudes toward the baby. The specific measures are described below.

Social Network Interview

The network interview employed in this investigation was developed by Kahn and Antonucci (Antonucci, 1986) and adapted for use with mothers of infants by Levitt, Weber, and Clark (1986). Data on social networks included size, age and relationship composition, and supportive functions. The form contained the following specific indices:

Network Diagram. The network diagram consists of three concentric circles with the participant at the center. The participant was asked to place (by name or initial) in the inner circle those individuals who are "so close" that "it's hard to imagine life without them." Those that are "not quite as close, but are still very important" were placed in the second circle, with those "not quite as close, but still important" included in the outer circle. For the first ten persons listed in the

network, mothers were asked to indicate the individual's age and relationship to her (husband, daughter, etc.). Each woman was also asked to select, from all the adults in the circle diagram, the person who was "closest or most important" to her.

Support Functions. Included were ten support functions representing affective (emotional support), affirmative (self-esteem support), and direct aid (instrumental support) categories, as proposed by Kahn and Antonucci (1980). The mother was asked specifically to indicate those in whom she confides, who reassure her, who make her feel respected, who would care for her if she were ill, who would give immediate help, who make her feel liked or loved, who agree with her thoughts, with whom she can talk if upset, nervous, or depressed, who would babysit if needed, and to whom she could turn for advice about the baby. Two indices were generated through this procedure, including (a) network support, comprised of the total number of support functions provided by the network as a whole minus the number of functions provided by the close person and (b) close support, including the total number of functions provided by the closest person in the network. Reliabilities (alpha) were .87 for the network support scale and .64 for the close support index.

Expectancy Confirmation

A 13-item support expectations scale was pilot tested on women attending childbirth classes (N = 40), and postbirth infant-mother playgroups (N = 25). The mother was asked to indicate the extent to which the support received from her closest network person had met her expectations since the baby was born in several specific areas, including

assisting with baby care and household tasks, providing emotional support, contributing financially, showing affection for, spending time with, and showing interest in mother and baby, and a global item referring to "all of the support" received from the close person. Participants answered on a 5-point scale, with responses ranging from "much more than expected" to "much less than expected." A sixth option category, "not needed," was also included. A composite score was calculated for the total scale. The alpha reliability was .86.

Stress

The primary instrument used to measure stress was an abbreviated 50-item version of the 117-item Hassles Scale developed by Kanner, Coyne, Schaefer, and Lazarus (1981). Lazarus and his colleagues have demonstrated that well-being is related more strongly to the daily hassles typically associated with major life changes than to the simple presence or absence of stressful life events. The Hassles Scale items are described to participants as "things that can make a person feel irritated or hassled." Respondents were asked to select items that had happened to them in the last few weeks and then to rank each item according to severity (mild, moderate, extreme). Based on the severity ratings, the reliability (alpha) was .93 for the modified scale. Following Kanner, et al., two indices were derived from the Hassles Scale, including (a) hassles frequency (absolute number of hassles), with a potential range of 0 to 50, and (b) hassles intensity (the mean of the severity ratings for hassles reported), with a potential range of 1 to 3.

Relationship Satisfaction and Conflict

It has been recognized that positive and negative qualities co-exist within close relationships (Rook, 1984), and that the overall quality of a relationship is best conceptualized in terms of both positive and negative aspects. Consequently, two separate scales (Satisfaction and Conflict) were created. There is little consensus among researchers as to appropriate measures of the quality of adult relationships (Kelley, et al., 1983), but it has been demonstrated that close relationships share certain features, regardless of the particular role structure of the relationship (Sternberg & Grajek, 1984). Based on these findings, items from the Rubin (1973) Liking and Loving scales, and from two marital satisfaction scales (Belsky, 1985; Campbell, Converse, & Rodgers, 1976) were incorporated into the relationship satisfaction and conflict scales used in this study. The scales were pretested with the expectancy confirmation measure.

The Relationship Satisfaction Scale was composed of 16 items indexing closeness and satisfaction in a relationship, such as, "My significant other is the sort of person I would like to be," and "I can confide in my significant other about virtually everything." The Relationship Conflict Scale consisted of 14 items describing negative relationship behaviors, such as, "My significant other is critical of me," and "I have felt tense from fighting and arguing with my significant other." The satisfaction and conflict items were intermixed for presentation to the participant. In response to these items, the participants indicated the extent to which they agreed or disagreed on a

5-point scale. Reliability (alpha) coefficients were .87 for the Satisfaction scale, and .90 for the Conflict scale.

Maternal Affect

Maternal affect was assessed with the Bradburn Affect Balance Scale containing five positive affect items and five negative or depressed affect items (Bradburn, 1969). This scale has been found to be sensitive to variations in affect in nonclinical populations. Sample items include "bored," "on top of the world," "depressed," and "pleased about having accomplished something." Scores on the full affect balance scale can range from 0 to 10, with higher scores indicating more positive affect. Reliability (alpha) for the scale was .63.

Attitudes Toward the Baby

Semantic differential items assessing the mother's attitudes toward the baby were drawn from Bidder, Crowe, & Gray, (1974) and Walker, Crain, & Thompson, (1986). Adjective pairs included noisy/quiet, tense/relaxed, dissatisfied/satisfied, excitable/calm, belligerant/peaceful, difficult/easy, unpleasant/pleasant, bad/good, and sour/sweet, with responses ranging from 1 to 7. (The order of some adjective pairs was reversed to control for response bias). The mean of the mother's responses to these items comprised the Infant Perception Scale. Higher scores on the scale indicate more positive attitudes toward the baby. Reliability (alpha) of the scale was .81.

Results

Preliminary Analyses

The relations between extraneous variables and the predictor and

criterion variables in the study were evaluated initially to avoid the possibility of confounding effects in subsequent analyses. These included maternal age and education, husband's education, family income, number of children in the family, and total number of persons in the mother's network. Of these, the only variable demonstrating any consistent trend was number of children in the family, which was related inversely to close person support, $r = -.24$, $p < .05$, and positively to close person conflict, $r = .32$, $p < .01$. However, statistically controlling (partialling) the effects of number of children on the outcome measures did not alter the results. Consequently, the analyses reported below did not include this variable.

Diagnostic statistics were also obtained prior to conducting the principal analyses to ensure that the variables were normally distributed and free of outliers. One variable, close support, was skewed because most mothers reported relatively high levels of support from their closest person. This outcome was not surprising, and is consistent with previous findings (Levitt, in press), but posed a problem for the analysis. The variable was recoded, so that participants reporting that the close person provided fewer than 7 support functions were collapsed into one "lower support" category. The recoding produced a variable with acceptable distributional characteristics. (This method of normalizing the distribution was elected rather than a transformation of the data because the positive skew is thought to reflect accurately the population trend).

The Mother's Social Network

Mothers included a mean of 16 persons in their network diagrams, with 6 in the inner circle, 6 in the middle circle, and 4 in the outer circle. The ages of these network members ranged from 15 days to 98 years. The most common network relationships included mother (79), husband (69), father (51), boyfriend (7), son (72), daughter (59), sister (76), brother (53), and friend (83). Numbers in parentheses indicate the number of times the women placed a person in that role among the first 10 persons in the network. When asked to list the person "closest or most important" to her, 57 women listed their husbands and 19 of the women selected their own mothers. Other relationships selected for closest person included boyfriend (2), father (2), brother (2), and aunt (1).

Social Support

It was hypothesized that relationship quality and maternal affect would vary as a function of support from the close network person, and that close support would have a stronger effect than would support from the network as a whole. The correlations of the support measures with the relationship and well-being outcome measures are presented in Table 1. Hierarchical multiple regression analysis was used to test the hypothesis for each of the criterion measures. Network support was entered into the equation first, followed by close support. The hypothesis was supported; close support had a significantly greater effect than network support on relationship satisfaction, conflict, and affect balance. The regression results are presented in Table 2.

Insert Tables 1 and 2 about here

Expectancy Confirmation

Based on the proposed model, it was predicted that both maternal affect and the quality of the mother's closest relationship would vary as a function of the degree to which the mother's expectations of support from the close person were confirmed following the infant's birth. Furthermore, it was anticipated that this effect would hold over and above the absolute amount of support provided by the close individual. The correlations of the expectancy confirmation measure with the criterion measures are presented in Table 1 above. Hierarchical multiple regression analyses were conducted for each of the well-being and relationship measures. The hypothesis was supported for affect and modestly for relationship satisfaction, but expectancy confirmation was not related significantly to relationship conflict. These results are presented in Table 3.

Insert Table 3 about here

Table 4 includes the zero-order and partial correlations (controlling for close support) of the individual expectancy items with relationship satisfaction, conflict, and maternal affect. Relationship satisfaction was associated largely with confirmation of expectations regarding emotional support items, and with the single item indexing the extent to which the mother perceived that her expectations for support

had been generally confirmed. Consistent with Ruble, et al. (1988), instrumental items reflecting division of labor expectations were not related to relationship satisfaction and conflict. Maternal affect was linked to both emotional and instrumental support expectations.

Insert Table 4 about here

Maternal Stress

Hassles. Hassles reported most frequently by the participants included not getting enough rest, not getting enough sleep, physical appearance, not enough time to do needed activities, troubling thoughts about the future, concerns about owing money, trouble relaxing, home maintenance, too many things to do, and concerns about weight.

Although normative data on the Hassles Scale were not available (DeLongis, 1989), to assess the extent to which this postpartum period was, in fact, stressful, the present findings were compared with those from two diverse samples, including a middle-age (45-65) sample of women studied by Kanner, et al. (1981), and a sample of women in an economically distressed population of migrant farm workers, who ranged in age from 18 to 53 (M = 30.8). Based upon administration of the complete 117-item Hassles Scale, the mean frequency of hassles for women in the Kanner, et al. sample was 18.9; for 109 of these items administered to the migrant women, the mean was 21.8. These values were lower than the mean frequency of 27.5 reported by mothers for the 50 items included in this study, and of 30.6 for mothers of 2-month-old infants (for 117 items) in a study by MacPhee, Benson, and Bullock (1986).

Infant risk status, hospitalization, and type of delivery. Neither of the hassles indices (frequency nor intensity) was related significantly to infant risk status. Of greater importance was whether the infant remained hospitalized. Mothers of hospitalized infants had higher intensity scores, $t(81) = 2.26$, $p = .03$, with a mean of 1.66 for mothers of hospitalized infants and 1.47 for mothers of infants at home. Women who had undergone caesarean delivery also had greater hassles intensity scores ($M = 1.60$), compared to those who delivered vaginally ($M = 1.43$), $t(81) = 2.38$, $p = .02$. However, infant risk status, hospitalization, and caesarean delivery were unrelated to the remaining predictor and outcome measures.

Stress, relationship quality and well-being. The hassles measures were significantly related to all of the outcome criteria, as indicated in Table 1 above. Hassles frequency and intensity were negatively correlated with affect balance, and with satisfaction in the relationship with the close person. Conflict in the relationship was positively correlated with hassles.

It was anticipated that the effects of support might be more pronounced for those mothers experiencing greater stress (Crnic, et al., 1983). The interrelations of close support and stress were assessed through hierarchical multiple regression analysis, with an interaction term composed of stress (hassles frequency or intensity) and support entered into the regression after the two main effect predictors, hassles and close support.

Hassles frequency did not interact with support in relation to any

of the outcome measures. With the hassles intensity score as the stress variable, an interactive effect was found for the relationship satisfaction and relationship conflict measures. Relationship satisfaction was more strongly associated with close support in women with higher stress; under conditions of low stress, close support had a lesser but still positive association with satisfaction scores. Women with low stress varied little in regard to conflict scores under varying conditions of support, but women with greater stress had higher conflict scores under low support and lower conflict scores under conditions of high support. The results are presented in Table 5 and depicted in Figure 3. As indicated in Table 5, the interaction of stress and support was not significantly related to the mother's affect. Additional analyses indicated no interactive effects of hassles frequency or intensity and support expectations.

Insert Table 5 and Figure 3 about here

Attitudes Toward the Infant. The results in Table 1 indicate relations between maternal stress, maternal affect and the Infant Perception Scale. Mothers reporting more frequent or intense hassles and more negative affect evaluated their infants more negatively. Hierarchical regression analyses indicated that maternal attitudes toward the infant were not related directly to the support measures, but there was an interaction of close support with hassles frequency, $F(3,79) = 5.96$, $p = .02$. High levels of support were related to positive attitudes toward the infant under lower, but not higher, stress conditions.

Discussion

The ease with which women were able to conceptualize their personal relationships in terms of the circle diagram is consistent with previous research (Antonucci, 1986; Levitt, in press; Levitt, Weber, & Clark, 1986). Also consistent is the choice of husband or mother as the most significant relations, because prior research has suggested that husbands and mothers are the primary postpartum support givers (Blumberg, 1980; Crnic, et al., 1983; Levitt et al., 1986; Tietjen & Bradley, 1985). These findings suggest that maternal support is typically derived through both old and new attachments.

In the proposed model, close attachment relationships are viewed as more important to personal well-being than social networks as a whole. Attachments in adulthood are thought to serve a function similar to that of infant attachments; that is, to provide a "secure base" from which the individual can cope with the stresses of the environment. Ainsworth and her colleagues have illustrated the secure base phenonemon by demonstrating that infants are less distressed and more active in exploring a strange environment in the presence of an attachment figure (Ainsworth, Blehar, Waters, & Wall, 1978; Bretherton & Waters, 1985). That the provision of security continues to function in adult attachment relations is suggested in a study by Reedy, Birren, and Schaie (1981), in which the principal component of satisfying marital relationships across age and gender was found to be the perception of emotional security provided by the relationship.

In the proposed model, emotional security is defined in terms of

support expectations and is viewed as an outgrowth of past and current support experiences with close network members. Consistent with an attachment model, in the present study, significant relations were established between close support and each of the relationship and well-being outcome measures, over and above the effect of network support. In fact, network support did not correlate significantly with any of the outcome measures.

It was also predicted from the proposed model that relationship quality and personal well-being would vary as a function of the degree to which the mother's expectations of support from the close person had been met through the life transition of childbirth. The prediction was modestly substantiated with regard to relationship satisfaction, but conflict was unrelated to expectancy confirmation. Expectancy confirmation was a strong predictor of affective well-being.

These results are preliminary, because an adequate test of the hypothesis requires the collection of prospective data that would allow a consideration of expectancy confirmation in relation to prebirth expectations. It is possible that some of the mothers in this study adjusted their perceptions of expectancy confirmation to compensate for the partner's failure to meet their expectations. Such adaptations are anticipated as a means of stabilizing close relationships in the face of expectancy violations (Levitt, in press; Ruble, et al., 1988). A prospective analysis might reveal more pronounced effects of expectancy confirmation on relationship quality than those uncovered in the present study. Prospective analysis is needed in general to explore direction of

effects issues raised by the current results. In the absence of longitudinal data, however, these results can be viewed as preliminary support for the proposed model, and they encourage further investigation.

The final issue addressed in this research was the interrelation of close support, expectancy confirmation and stress as predictors of relationship and well-being outcomes. The specific hassles reported by mothers in the study were very similar to stressors described in prior studies of postbirth stress (Hiser, 1987; MacPhee, Benson, & Bullock, 1986; Mercer, 1985), and were considerably more frequent than those reported by women in other samples who were not mothers of newborn infants. The marked effect of stress on the study participants was apparent in that all of the maternal outcomes were significantly correlated with hassles. Women with more hassles had less positive affect, more negative attitudes toward the baby, and less satisfying and more conflicted relationships with the close person. These results support the view that the transitional period after birth provides a stressful situation when interpersonal expectations are likely to be tested.

Specific hypotheses focused on the extent to which support evidenced direct versus indirect (buffering) effects on relationship quality and affect in relation to varying levels of stress. With hassles frequency as the predictor, close support exhibited only direct effects on relationship quality. When hassles intensity was used as a measure of stress, close support was a stronger predictor of relationship satisfaction and conflict for women under high stress than for women with

low stress. The direction of this effect is not certain, however; it is plausible that perceived intensity of hassles may be an outcome, rather than a predictor, of variations in relationship quality.

With regard to maternal affect, both close support and the confirmation of support expectations exhibited direct effects, and there was no evidence of an interactive or buffering effect. This result is not unexpected, given the inconsistencies in prior research (Cohen & Wills, 1985) and the high levels of stress reported by the women in this study. The findings suggest that the first few weeks after birth are stressful regardless of infant health status, and buffering effects may not emerge in the absence of a "low stress" comparison group. A similar explanation can be forwarded for the finding that support acted as a positive mediator of maternal attitudes toward the infant only under lower stress conditions; that is, the "low stress" levels in this study would be considered relatively high in absolute terms, and the "high stress" conditions may be so stressful that supportive others are limited in their abilities to buffer the situation. These explanations are admittedly post hoc, however, and the unraveling of stress-support effects will require considerably more attention from researchers.

The direct effects uncovered in this investigation indicate that stress has a negative impact on affective well-being, but close support and the confirmation of support expectations contribute positively to maternal affect, regardless of the level of stress. Antonucci (in press) suggests that direct effects that hold even in the presence of stress reflect the continuity and robustness of support network functioning

across transitional or crisis periods.

The fact that stress scores did not differ between mothers of high risk and normal infants was also not unexpected, given previous discrepancies in the literature. It is notable, however, that mothers of infants who remained hospitalized did report more stress. This finding may reconcile some previous inconsistencies. For example, Crnic, et al. (1983) found no differences in stress level for mothers of full term versus premature infants. However, all of these infants were home at the time of the interview. Blumberg (1980) measured stress in mothers of sick and well infants a few days after birth when the infants were still hospitalized, and found higher anxiety levels in mothers of sick infants. Thus, it may be the combination of hospitalization and illness, rather than risk status alone, that differentiates maternal perceptions of stress in the newborn period. In general, the results suggest that the degree of stress experienced during this particular life transition, even under normal circumstances, may be often underestimated.

To summarize briefly, the results provide preliminary support for a proposed model of life span attachment and support processes. As predicted by the model, close relationship satisfaction and affective well-being following the major life transition of childbirth were related specifically to support from the close person and to the confirmation of support expectations. Longitudinal research should provide a more robust test of this model in future investigations.

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Table 1

Intercorrelations of Study Variables

Variable	NS	CS	EC	HF	HI	RS	RC	AB	PI
Predictor Variables									
Network Support (NS)	-								
Close Support (CS)	.25*	-							
Expectancy Confirm. (EC)	.08	.12	-						
Hassles Frequency (HF)	.16	-.17	-.13	-					
Hassles Intensity (HI)	.15	-.22*	-.06	.46**	-				
Criterion Variables									
Rel. Satisfaction (RS)	.18	.45**	.24*	-.38**	-.27**	-			
Rel. Conflict (RC)	-.10	-.34**	-.12	.33**	.28**	-.57**	-		
Affect Balance (AB)	-.06	.21*	.30**	-.47**	-.52**	.41**	-.22*	-	
Perception of Infant (PI)	.01	.05	.04	-.31**	-.21*	.24*	.03	.29**	-

*p <.05; **p <.01 or less.

Table 2

Hierarchical Regression Analyses of Network Support and Close Support on Relationship Satisfaction, Conflict, and Affect Balance

Variable	beta	R	R^2(change)	F(change)	F(regression)
Relationship Satisfaction					10.59***
Network Support	.18	.18	.03	2.58	
Close Support	.44	.46	.18	18.05***	
Conflict					5.20***
Network Support	-.10	.10	.01	.84	
Close Support	-.33	.34	.10	9.46***	
Affect Balance					2.52*
Network Support	-.06	.06	.00	.28	
Close Support	.24	.24	.06	4.75**	

Note. R^2(change) and F(charge) represent the proportion of variance accounted for by the entering variable over and above prior variables entered in the analysis; F(regression) indicates the F-value for the equation with all variables entered.

*$p < .09$; **$p < .05$; ***$p < .01$.

Table 3

Hierarchical Regression Analyses of Close Support and Expectancy Confirmation on Relationship Satisfaction, Conflict, and Affect Balance

Variable	beta	*R*	R^2(change)	*F*(change)	*F*(regression)
Relationship Satisfaction					12.52***
Close Support	.45	.45	.20	20.87***	
Exp. Confirmation	.18	.49	.03	3.52*	
Conflict					5.51***
Close Support	-.34	.34	.11	10.48***	
Exp. Confirmation	-.08	.35	.01	.58	
Affect Balance					5.69***
Close Support	.21	.21	.05	3.91**	
Exp. Confirmation	.28	.35	.08	7.16***	

Note. R^2(change) and *F*(change) represent the proportion of variance accounted for by the entering variable over and above prior variables entered in the analysis; *F*(regression) indicates the *F*-value for the equation with all variables entered.

*$p < .06$; **$p < .05$; ***$p < .01$.

Table 4

Zero-Order and Partial Correlations of Expectancy Confirmation Items with Relationship and Well-Being Measures

Variable	Relationship Sat.		Conflict		Affect	
	r	r.cs	r	r.cs	r	r.cs
Affection for Baby	.09	.13	.10	.08	.11	.13
Interest in Baby	.12	.13	.00	.01	.23**	.24**
Approving Caretaking	.14	.17*	.05	.05	.17*	.18*
Emotional Support	.28***	.20**	-.27***	-.21**	.21**	.17*
Buy Things for Baby	.16*	.15*	-.15*	-.14	.33***	.32***
Affection for Mother	.20**	.15*	-.18**	-.14	.24***	.22**
Interest in Mother	.14*	.13	-.12	-.10	.23**	.22**
Babysit When Needed	.06	-.02	-.18*	-.13	.22**	.19*
Time w. Mother and Baby	.17*	.13	-.14	-.11	.23**	.22**
Financial Support	.11	.18**	.04	.00	.09	.12
Help with Baby Care	.10	.09	-.11	-.10	.21**	.21**
Help with Housework	.09	.02	-.08	-.03	.22**	.19**
Overall Support	.26***	.21**	-.12	-.07	.22**	.18**

Note. The zero-order correlations (r) are presented first, followed by the partials (r.cs). Partial correlations represent the relations between each expectancy item and the criterion measures controlling for close support (cs).

*p < .10; **p < .05; ***p < .01.

Table 5

Hierarchical Regression Analyses of Hassles Intensity and Close Support on Relationship Satisfaction, Conflict, and Affect Balance

Variable	beta	R	R^2(change)	F(change)	F(regression)
Relationship Satisfaction					9.82**
Hassles Intensity	-.27	.27	.07	6.14*	
Close Support	.41	.48	.16	17.14**	
Hassles x Support	.20	.52	.04	4.04*	
Conflict					8.73**
Hassles Intensity	.28	.28	.08	6.88**	
Close Support	-.29	.40	.08	7.72**	
Hassles x Support	-.31	.50	.09	9.42**	
Affect Balance					10.85**
Hassles Intensity	-.52	.52	.27	30.46**	
Close Support	.11	.53	.01	1.22	
Hassles x Support	-.09	.54	.01	.85	

Note. R^2(change) and F(change) represent the proportion of variance accounted for by the entering variable over and above prior variables entered in the analysis; F(regression) indicates the F-value for the equation with all variables entered.

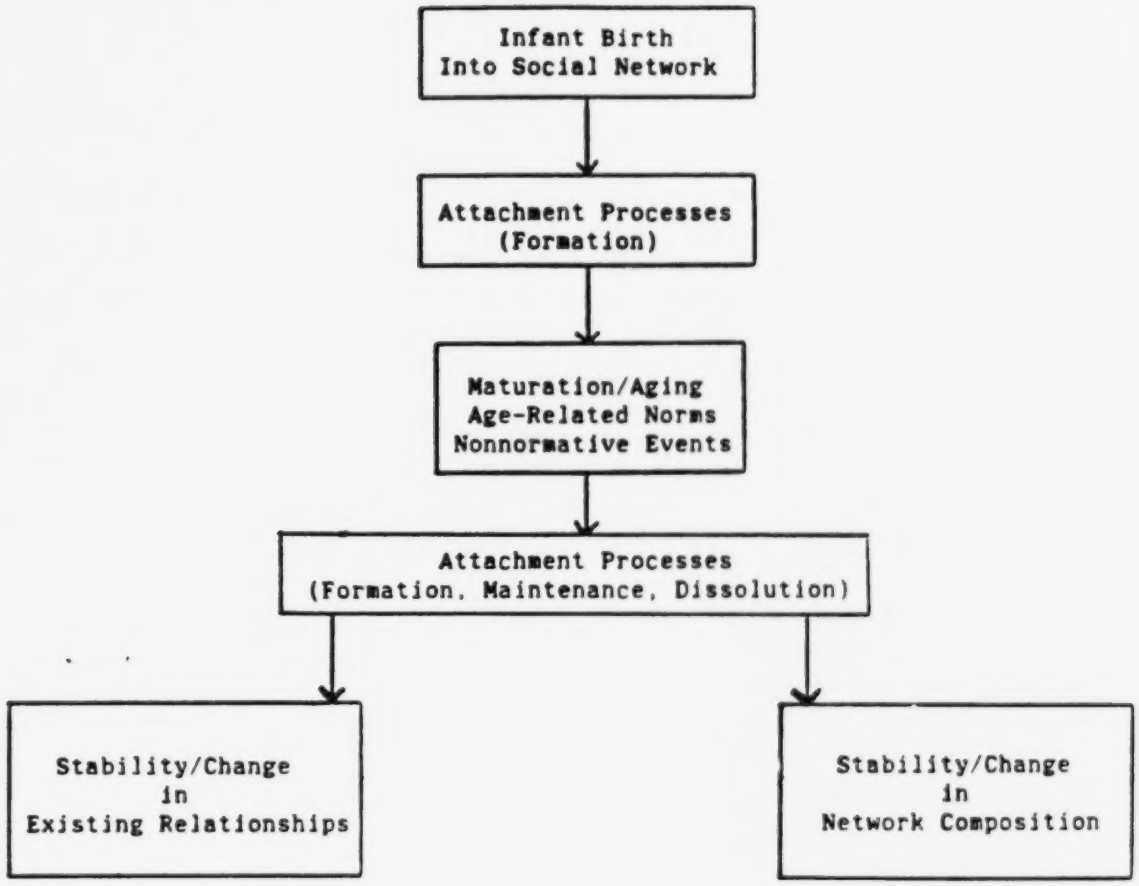
*$p < .05$; **$p < .01$.

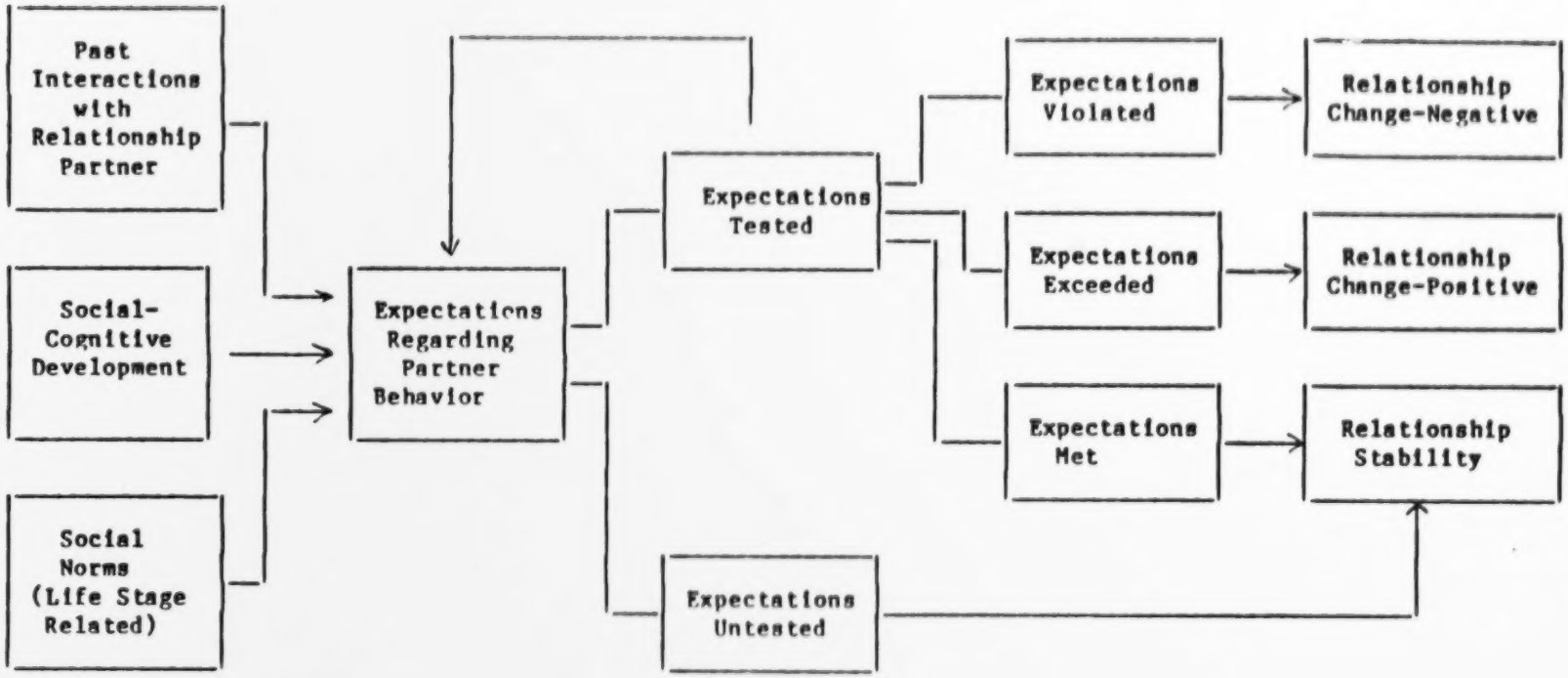
Figure Captions

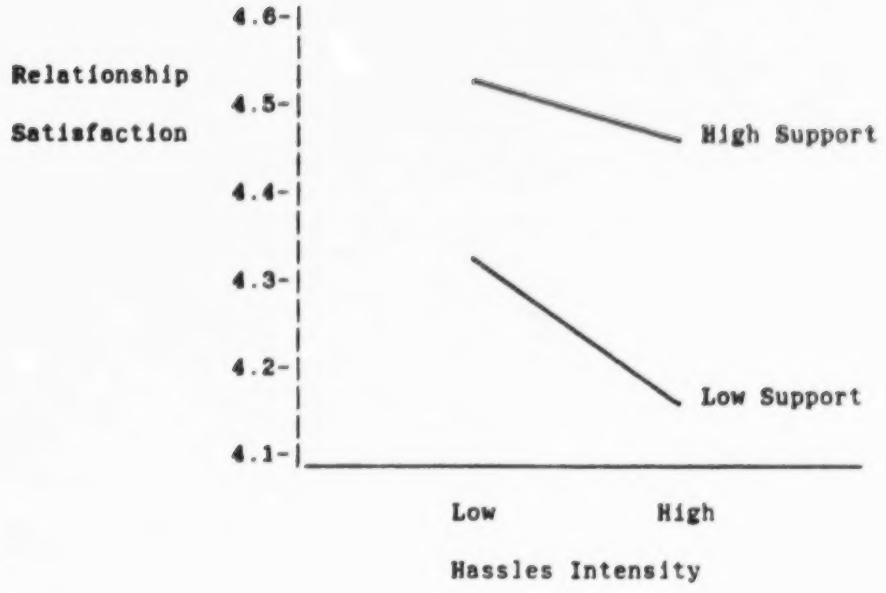
Figure 1. Development of close relationships across the life span.

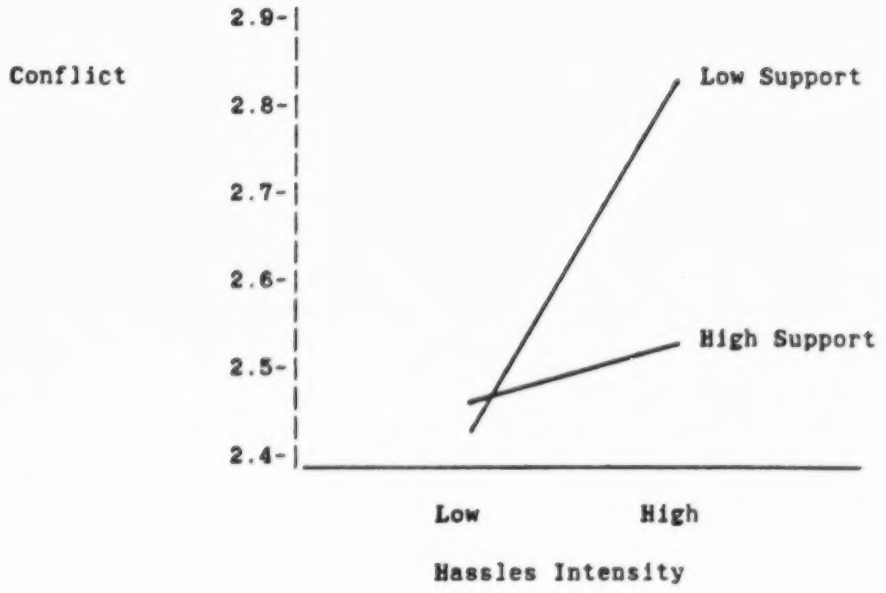
Figure 2. Hypothesized model of processes governing relationship change and continuity across the life span.

Figure 3. Mean relationship satisfaction and conflict scores for high and low close support and high and low hassles intensity.


Infant Birth
Into Social Network
Attachment Processes
(Formation)
Maturation/Aging
Age-Related Norms
Nonnormative Events
Attachment Processes
(Formation, Maintenance, Dissolution)
Stability/Change
in
Existing Relationships
Stability/Change
in
Network Composition


Past Interactions with Relationship Partner
Social-Cognitive Development
Social Norms (Life Stage Related)
Expectations Regarding Partner Behavior
Expectations Tested
Expectations Untested
Expectations Violated
Expectations Exceeded
Expectations Met
Relationship Change-Negative
Relationship Change-Positive
Relationship Stability


4.6
4.5
4.4
4.3
4.2
4.1
Relationship Satisfaction
High Support
Low Support
Low
High
Hassles Intensity


2.9
2.8
2.7
2.6
2.5
2.4
Conflict
Low Support
High Support
Low
High
Hassles Intensity